

REVISIONAL NOTES ON THE GENUS
EPITOLA WESTWOOD

(LEPIDOPTERA : LYCAENIDAE)

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REVISIONAL NOTES ON THE GENUS *EPITOLA* WESTWOOD (LEPIDOPTERA: LYCAENIDAE)

By PATRICK ROCHE

THE genus *Epitola* was established by Westwood in 1852 for *Papilio posthumus*, a species described by Fabricius as long ago as 1793. Since that date a large assemblage of species has been added. The species are all found in the great tropical forest belt of Africa, extending from Sierra Leone in the West to Uganda in the East. Although many species are widespread through this area, they nearly all tend to show extreme localization, often being found on and around one twig on one tree and not being seen again for many miles when a second "pocket" may be encountered. For this reason and because they usually fly rather high and erratically many species are poorly represented in collections, and in the future they will probably prove to be commoner than at present appears to be the case.

The genus as treated by Aurivillius in Seitz (*Macrolepidoptera of the World*, Vol. XIII) contained two species which have since been included in other genera: *honorius* Fabricius is referable to *Aethiopana* Bethune-Baker and *ernesti* Karsch to *Egumbia* Bethune-Baker.

Marked sexual dimorphism is the rule in *Epitola*. Of many species only the male is known, while in the majority the males have yet to have proved their connection with their respective females. This can only be done either by breeding or by catching the species *in copula*. It has been found that the fine distinctions in the pattern of the undersides and, even more, reliance upon locality and date of capture lead to gross inaccuracy. It is considered that our knowledge of the females is still too limited to provide a key for their differentiation. The key which follows is designed, therefore, solely as an aid to the identification of the males. It may be stated, however, that the division of the genus into groups of species according to the general appearance of the male underside appears to be a sound natural classification in that the upperside pattern of those females which are known enables them to be classified into similar groups. *E. lamborni* Bethune-Baker is known only in the female, so that this species has been omitted from the key.

The chitinized portion of the male genital armature is of a simple type, and the dissection and examination of a considerable number failed to reveal any reliable characters upon which the differentiation of the species could be based.

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CHECK-LIST OF THE SPECIES OF *EPITOLA*

1. *crippsi* Stoneham, 1933, *Bull. Stoneham Mus.* **17** : 1.
2. *hewitsoni* Mabile, 1877, *Bull. Soc. Zool. Fr.* **2** : 221 (= *falkensteini* Dewitz).
3. *hewitsonioides* Hawker-Smith, 1933, *Stylops* **2** : 11.
4. *miranda* Staudinger, 1889, *Ent. Nachr.* **15** : 176.
ssp. *vidua* Talbot, 1935, *Ent. mon. Mag.* **71** : 75.
5. *posthumus* Fabricius, 1793, *Ent. Syst.* **3**(1) : 149 (♂ = *elion* Doubleday & Hewitson, ♀ = *belli* Hewitson).
6. *urania* Kirby, 1887, *Ann. Mag. nat. Hist.* (5) **19** : 441.
ssp. *tanganikensis* Joicey & Talbot, 1921, *Bull. Hill. Mus.* **1** : 86.
7. *crowleyi* Sharpe, 1890, *Ann. Mag. nat. Hist.* (6) **6** : 106.
8. *semibrunnea* Bethune-Baker, 1916, *Ibid.* (8) **17** : 378 (= *ammon* Joicey & Talbot, 1921).
9. *ceraunia* Hewitson, 1879, *Ent. mon. Mag.* **10** : 149 (= *dewitzi* Kirby).
10. *adolphi-friderici* Schultze, 1911, *Iris* **25** : 95.
11. *dunia* Kirby, 1887, *Ann. Mag. nat. Hist.* (5) **19** : 441.
12. *carcina* Hewitson, 1873, *Ent. mon. Mag.* **10** : 150 (♀ = *kholifa* Bethune-Baker, 1904, and *entebbeana* Bethune-Baker, 1926).
13. *flavoantennata* sp. nov.
14. *badura* Kirby, 1890, *Ann. Mag. nat. Hist.* (6) **6** : 271.
15. *marginata* Kirby, 1887, *Ibid.* (5) **19** : 443.
var. *umbratilis* Holland, 1890, *Psyche* **5** : 425.
16. *tumentia* Druce, 1910, *Proc. zool. Soc. Lond.* 366.
17. *congoana* Aurivillius, 1923, *Ergebn. zweit. Deutsch. Zentr. Afr. Exped. 1910-11, Zool.* **17** : 1202.
18. *leonina* Staudinger, 1888, *Exot. Tagf.* **1** : 268.
19. *elissa* Grose-Smith, 1898, *Novitates Zoologicae* **5** : 354 (= *oniensis* Bethune-Baker, 1913).
20. *uniformis* Kirby, 1887, *Ann. Mag. nat. Hist.* (5) **19** : 445.
21. *zelza* Hewitson, 1873, *Ent. mon. Mag.* **10** : 151 (= *badia* Kirby, 1887).
22. *ikoya* sp. nov.
23. *cercene* Hewitson, 1873, *Ent. mon. Mag.* **10** : 150.
24. *moyambina* Bethune-Baker, 1903, *Ann. Mag. nat. Hist.* (7) **12** : 330.
25. *cercenoides* Holland, 1890, *Psyche* **5** : 424 (= *batesi* Druce, 1910).
26. *katherinae* Poulton, 1929, *Trans. ent. Soc. Lond.*, **77** : 494.
27. *dorothea* Bethune-Baker, 1904, *Ann. Mag. nat. Hist.* (7) **14** : 227.
28. *iturina* Joicey & Talbot, 1921, *Bull. Hill. Mus.* **1** : 84 (= *bella* Aurivillius, 1923).
29. *rileyi* Audeoud, 1936, *Mitt.-Schweiz. ent. Ges.* **16** : 704.
30. *carilla* sp. nov.
31. *jacksoni* sp. nov.
32. *staudingeri* Kirby, 1890, *Ann. Mag. nat. Hist.* (6) **6** : 271.
ssp. *mara* Talbot, 1935, *Ent. mon. Mag.* **71** : 75.
ssp. *gordonii* Druce, 1903, *Ann. Mag. nat. Hist.* (7) **11** : 70.
33. *insulana* Aurivillius, 1923, *Ergebn. Zweit. Deutsch. Zentr. Afr. Exped. 1910-11, Zool.* **17** : 1203.
34. *intermedia* sp. nov.
35. *convexa* sp. nov.
36. *sublustris* Bethune-Baker, 1904, *Ann. Mag. nat. Hist.* (7) **14** : 228.

37. *mengoensis* Bethune-Baker, 1906, *Ibid.* (7) 17 : 105.
 38. *subcoerulea* sp. nov.
 39. *conjuncta* Smith & Kirby, 1893, *Rhop. Exot.* 23 ; *Lyc. Afr.* 86.
 ssp. *budduana* Talbot, 1937, *Trans. ent. Soc. Lond.* 86 : 62.
 40. *barombiensis* Kirby, 1890, *Ann. Mag. nat. Hist.* (6) 6 : 274.
 41. *dolorosa* sp. nov.
 42. *nigra* Bethune-Baker, 1903, *Ann. Mag. nat. Hist.* (7) 12 : 331.
 43. *mercedes* Suffert, 1904, *Iris* 17 : 53.
 44. *langi* Holland, 1920, *Bull. Amer. Mus.* 43 : 217.
 45. *obscura* Hawker-Smith, 1935, *Stylops* 2 : 11.
 46. *ghesquierei* sp. nov.
 47. *catuna* Kirby, 1890, *Ann. Mag. nat. Hist.* (6) 6 : 273.
 48. *pinodes* Druce, 1890, *Ibid.* (6) 5 : 24.
 49. *viridana* Joicey & Talbot, 1921, *Bull. Hill Mus.* 1 : 84.
 ssp. *radiata* Bethune-Baker, 1926, *Ann. Mag. nat. Hist.* (9) 17 : 393.
 50. *orientalis*-sp. nov.
 51. *maculata* Hawker-Smith, 1926, *Rev. Zool. Afr.* 14 : 240.
 52. *carpenteri* Bethune-Baker, 1921, *Trans. ent. Soc. Lond.* : 462.
 53. *cephena* Hewitson, 1873, *Ent. mon. Mag.* 10 : 151.
 54. *doleta* Kirby, 1890, *Ann. Mag. nat. Hist.* (6) 6 : 273 (= *leonensis* Bethune-Baker, 1904).
 ssp. *entebbeana* Bethune-Baker, 1926, *Ann. Mag. nat. Hist.* (9) 17 : 392. (The insect described by Bethune-Baker as the female of *entebbeana* agrees with the female of *carcina* Hewitson. The true female of *entebbeana* must, therefore, be regarded as still undiscovered.)
 55. *vinalli* Talbot, 1935, *Ent. mon. Mag.* 71 : 75.
 56. *pinodoides* Smith & Kirby, 1893, *Rhop. Exot.* 23. *Lyc. Afr.* : 85.
 57. *concepcion* Suffert, 1904, *Iris* 17 : 54.
 58. *gerina* Hewitson, 1878, *Ill. Diurn. Lep. Suppl.* : 19 (= *zelica* Kirby, 1890, and *goodi* Holland, 1890).
 59. *lamborni* Bethune-Baker, 1921, *Trans. ent. Soc. Lond.* : 461.
 60. *virginea* Bethune-Baker, 1904, *Ann. Mag. nat. Hist.* (7) 14 : 230.
 61. *nitide* Druce, 1910, *Proc. Zool. Soc. Lond.* : 366.
 62. *albomaculata* Bethune Baker, 1903, *Ann. Mag. nat. Hist.* (7) 12 : 329.
 63. *daveyi* sp. nov.
 64. *liana* sp. nov.

KEY TO THE GROUPS OF SPECIES

1. Under surface of hind wing with black punctiform spots at the base . . . *hewitsoni* group
 - Under surface of hind wing without black punctiform spots at the base . . . 2.
 2. Under surface with longitudinal dark streaks between the viens . . . *posthumus* group
 - Under surface without dark streaks between the veins . . . 3.
 3. Under surface of fore wing with a longitudinal dark area in the posterior half of the wing extending from the base nearly to the margin (Figs. 26, 28, 30, 32, 34, 36, 38) . . . *pinodes* group
 - Under surface of fore wing without such a dark longitudinal area . . . 4.
 4. Under surface with light markings on a dark ground (Figs. 2, 4, 6, 8, 10, 12, 14, 16) . . . *carcina* group
 Under surface with dark markings on a light ground (Figs. 18, 20, 22, 24) . . . *nitide* group

The *hewitsoni* group.

1. Upper surface black and white *crippsi*
 - Upper surface black and blue 2.
 2. Pale blue. Cell of fore wing above entirely blue 3.
 - Dark blue. Cell of fore wing above entirely black *miranda*
 3. Size larger. Hind wing strongly produced at the ends of veins 2, 3 and 5 . . . *hewitsoni*
 Size smaller. Hind wing almost smoothly rounded *hewitsonioides*

The *posthumus* group

- | | | |
|----|---|--------------------------|
| 1. | Under surface with a metallic lustre | 2. |
| - | Under surface without a metallic lustre | <i>adolphi-friderici</i> |
| 2. | No light markings in the cell of the fore wing beneath | <i>crowleyi</i> |
| - | Light markings present in the cell of the fore wing beneath | 3. |
| 3. | Cell of the fore wing above entirely blue | 4. |
| - | Cell of the fore wing above completely or nearly completely black | 5. |
| 4. | The black apex of the fore wing above forms a prolongation into the blue discal area opposite the end of the cell | <i>urania</i> |
| - | The junction of the blue and the black at the apex of the fore wing above is a smooth line without invasion of the blue by the black opposite the end of the cell | <i>posthumus</i> |
| 5. | Distinct blue markings present on the fore wing above | <i>ceraunia</i> |
| - | Fore wing above entirely brownish-black except for a few scattered blue scales at the extreme base | <i>semibrunnea</i> |

The *pinodes* group

- | | | |
|-----|---|---------------------|
| 1. | Distal margin of fore wing very strongly convex, almost angled at vein 4 | 2. |
| - | Distal margin of fore wing only normally curved | 7. |
| 2. | Fore wing above unicolorous dark brownish-black, or at most with one or two very indistinct blue spots | 3. |
| - | Fore wing above with distinct blue markings | 5. |
| 3. | No blue spots on the fore wing, or not more than a feeble deep violet blue sheen on the disc when viewed in a strong lateral light. Black border of the hind wing invades the blue colour at least along the veins 2 to 4, thus reducing the blue discal area | 4. |
| - | Two very indistinct blue spots on the fore wing above. Black border of hind wing of uniform width from the anal angle to the apex, not extended inwards along the veins, the blue discal area being in consequence larger (Fig. 25) | <i>subcoerulea</i> |
| 4. | Black border of hind wing above invades the blue discal area along veins 2 to 4. The blue colour is an iridescent violetish blue | <i>sublustris</i> |
| - | Blue discal area of hind wing above reduced to blue scaling in between the black veins. The blue colour is a colder shade and less iridescent | <i>mengoensis</i> |
| 5. | Size larger. Length of fore wing 18 mm. Hind wing fairly evenly scaled with blue | <i>conjuncta</i> |
| - | Size smaller. Length of fore wing 14 mm. Blue area of hind wing reduced by black scaling on the veins | 6. |
| 6. | Under surface distinctly paler at the base becoming darker towards the margin, giving a scorched appearance | <i>barombiensis</i> |
| - | Under surface not markedly paler at the base (Fig. 28) | <i>dolorosa</i> |
| 7. | Hind wing above unicolorous brown without any blue marking | 8. |
| - | Hind wing above more or less marked with blue | 9. |
| 8. | Fore wing with blue spots in areas 2 and 3. | <i>nigra</i> |
| - | Fore wing with exceedingly faint traces of blue scaling in areas 6 and 7. (N.B.—A lens was required to detect these blue scales in Suffert's type specimen) | <i>mercedes</i> |
| 9. | Fore wing with distinct blue markings | 12. |
| - | Fore wing without distinct blue markings | 10. |
| 10. | Hind wing above with blue scaling in the distal half of the cell. Ground-colour of underside dark grey. Size larger (Figs. 31, 32) | <i>cephena</i> |
| - | Hind wing with diffuse blue scaling over the whole cell and surrounding areas. Ground-colour of underside not dark grey. Size smaller | 11. |
| 11. | Blue scales of hind wing above very scanty, giving only an indistinct blueness to the disc of the wing. Under surface rich brown with darker markings | <i>obscura</i> |
| - | Hind wing above distinctly blue with a black border. Under surface pale ochreous- | |

- grey without markings other than the usual black longitudinal area on the fore wing (Figs. 33, 34) *ghesquierei*
12. Veins of hind wing above not or only slightly black 13.
 Veins of hind wing above heavily scaled with black 16.
13. Dark longitudinal area on the fore wing beneath much darker than the ground-colour, the two contrasting strongly 14.
 Dark longitudinal area on the fore wing beneath not much darker than the ground-colour, with, therefore, only a slight contrast between the two *catuna*
14. Size larger. Black border of hind wing of uniform width from vein 1 to vein 7 *doleta*
 —. Size smaller. Black border of hind wing distinctly wider from the anal angle to vein 3 than from vein 3 to vein 7 15.
15. Fore wing above with a blue spot in area 4 *vinalli*
 Fore wing above without a blue spot in area 4 *pinodoides*
16. Under surface marked with whitish and grey 19.
 Under surface marked with brown and fulvous 17.
17. Under surface markings rather indistinct, especially at the apex of the fore wing 18.
 Under surface marked with fulvous on a dark brown ground, the contrast being very marked, especially at the apex of the fore wing (Fig. 36) *orientalis*
18. Blue coloration of fore wing above more pronounced, the dark-scaled vein 2 being a fine black line crossing the blue area behind the cell *pinodes*
 —. Blue coloration of fore wing above less pronounced, vein 2 being so heavily scaled with black that the blue area behind the cell is divided into two spots *viridana*
19. Under surface ground colour brownish-grey speckled with whitish lunular markings *maculata*
 Under surface ground colour pale grey heavily marked with whitish, this being the dominant colour of the hind wing (Fig. 38) *carpenteri*

The *carcina* group

1. A triangular scent patch at base of fore wing 2.
 —. No such scent patch on the fore wing, though one or two veins may be dilated 4.
2. Cell of fore wing above entirely blue except where it may be encroached upon in the basal posterior part by the scent patch 3.
 Cell of fore wing above contains two black spots *dunia*
3. Extreme tip only of the antennae yellow. Scent patch on the fore wing not extending above the median vein *carcina*
 Ventro-medial aspect of the antennae yellowish almost to the base. Scent patch on the fore wing extending on to the base of the cell (Fig. 1) *flavoantennata*
4. Median vein of the fore wing much more thickened or dilated at the base than vein 1 5.
 —. Vein 1 and the median vein more or less equal in width at the base 13.
5. Black mark at apex of cell of the fore wing above 7.
 —. No black mark at the apex of the cell of the fore wing above 6.
6. Length of fore wing about 18 mm., the apex pointed, and the outer margin almost straight. Area 6 of the hind wing with only a few blue scales *badura*
 —. Length of fore wing about 16 mm., the apex squared, and the outer margin very convex. Area 6 of the hind wing fully blue scaled *zelza*
7. Margins of the wings slightly but distinctly undulate *marginata*.
 —. Margins of the wings not distinctly undulate 8
8. Cell of fore wing entirely black except for a few scattered blue scales. Size larger, length of fore wing 18 mm. *tumentia*
 —. Cell of fore wing mainly blue. Size smaller, length of fore wing 16 mm. 9.
9. Costal margin of fore wing very broadly bordered with black, no blue in areas 6 and 7 10.
 —. Black costal border of fore wing narrower; base of areas 6 and 7 blue 11.
10. Dark marginal band of hind wing broad *congoana*
 —. Dark marginal band of hind wing narrow *leonina*

11. Under surface of fore wing with a white spot on the tornus 12.
 Under surface of the fore wing without a distinct white spot on the tornus (Fig. 6) *ikoya*
12. Upper surface of fore wing with a heavy black mark closing the apex of the cell, and in addition, two black marks in the cell *elissa*
- Upper surface of fore wing with at most a small black streak at the apex of the cell, there being no other marking in the cell *uniformis*
13. Black markings present on the disc of the fore wing as well as the black apex, costal and distal borders 22.
 — No black markings on the disc of the fore wing except the apex, costal and distal borders 14.
14. Black mark at the apex of the cell of the fore wing 15.
 No black mark at the apex of the cell of the fore wing 19.
15. The black mark at the apex of the cell of the fore wing is only a fine streak in the middle of the discocellular vein, and is not connected at all with the black costal border *cercene*
 — The black mark at the apex of the cell of the fore wing is triangular 16.
16. The triangular black mark at the apex of the cell of the fore wing is continuous with the black costal border *moyambina*
 — The triangular black mark at the apex of the cell of the fore wing is separated from the black costal border by a fine blue line 17.
17. The line of union of the black border and apex of the fore wing with the blue ground-colour is almost straight from vein 2 to 6, then curved, the black extending very little along the veins basad *cercenoides*
 — The blue colour of the fore wing is carried into the black border and apex conspicuously between the veins 18.
18. The white markings on the fore wing beneath less sharply outlined and the apices of the three "V's", which form the most conspicuous feature of the pattern, are blunt and rounded. The elements of the pattern are larger and more emphasized, especially on the hind wing *katherinae*
 — The white markings on the fore wing beneath are more sharply outlined. The apices of the three "V's" sharply pointed. Elements of the pattern smaller and less distinct *dorothea*
19. Black distal border of the fore wing above becomes suddenly narrow at vein 3. Distinct light submarginal band on fore wing beneath *iturina*
 — Black distal border of fore wing above not suddenly narrowed at vein 3. Submarginal row of light lunules on the fore wing beneath 20.
20. Distal margin of fore wing almost a straight line from the apex to the tornus. Black distal border of the fore wing tapered to a fine marginal line at vein 3 *insulana*
 — Distal margin of fore wing slightly but distinctly convex. Black distal border of the fore wing tapered to the tornus 21.
21. The blue colour of the fore wing above encroaches only slightly into the black apex between the veins. The distal margins of the wings are only very slightly convex (Fig. 9) *intermedia*
 — The blue colour of the fore wing extends into the black apex between the veins, giving the blue/black junction a serrated appearance. Fore wing distinctly convex at vein 5 (Fig. 11) *convexa*
22. Fore wing above with a subapical row of three white spots. Wings strongly undulate *rileyi*
 — Fore wing above without subapical white spots. Wings not undulate 23.
23. Upper surface black with distinct blue markings 24.
 Upper surface unicolorous blackish, with only a faint deep violet reflection when viewed in a strong lateral light *langi*
24. Basal half of area *1a* and the basal part of the cell of the fore wing black (Fig. 13) *carilla*
 — The cell of the fore wing and area *1a* (except for a narrow streak along vein 2) blue 25.

25. Fore wing above with a black mark at the end of the cell joining the black discal patch with the black costal border, thus separating off a blue subapical patch (Fig. 15) *jacksoni*
 Fore wing above with no such black mark at the end of the cell *staudingeri*

The *nitide* group

1. Upper surface unicolorous brown *concepcion*
 -. Upper surface more or less blue 2.
 2. Upper surface of fore wing occupied almost entirely by a large, circular, blackish scent patch (Fig. 17) *virginea*
 Upper surface of fore wing without a large scent patch 3.
 3. Under surface with dark markings much reduced, little or no marking in the cell of the fore wing beneath *nitide*
 Under surface with the dark markings well developed; distinct dark markings in the cell of the fore wing beneath 4.
 4. Costal margin, apex, and distal margin of fore wing above broadly black (at least 3 mm. broad in area 5) 5.
 -. The black of the fore wing above reduced to a narrow black costal border, apex, and very narrow distal marginal border (less than 1 mm. broad in area 5) (Fig. 19) . *daveyi*
 5. Black streak at the apex of the cell of the fore wing above (Fig. 23) *liana*
 -. No black streak at the apex of the cell 6.
 6. Dark markings on the under surface very heavily developed, a greater area being covered by the dark markings than by the light ground-colour *albomaculata*
 -. Dark markings on the under surface not so heavily developed *gerina*

DESCRIPTIONS OF NEW SPECIES

Epitola flavoantennata sp. nov.

(Pl. 19, figs. 1, 2, 3, 4)

This species is closely related to *E. carcina* Hewitson, from which it differs in the following respects: In both sexes the new species has the ventro-medial aspect of the antennae yellow almost to the base, whereas in *carcina* only the extreme tip is yellow. In the male the scent patch at the base of the fore wing is larger, covering the basal two-thirds of the cell and the base of area 1a, while in *carcina* the scent patch covers only the posterior part of the basal half of the cell, and is bounded posteriorly by vein 1.

Holotype male and allotype female. CAMEROONS: Bitje, Ja River, 2000 ft. (in British Museum (N.H.)).

Epitola carilla sp. nov.

(Pl. 20, figs. 13, 14)

MALE. Upper surface: fore wing blue, costal margin, apex, and distal margin black. A black patch covers the basal half of area 2 and the basal part of the cell except for a few scattered blue scales at the extreme base of the wing. This black patch is bounded posteriorly by vein 1, and anteriorly, in its distal part by vein 2 except for a narrow prolongation which extends forwards and outwards into area 3; the anterior boundary of the black patch in the basal part is carried obliquely across

the cell parallel with vein 1. The fringes of the fore wing are mainly dark in the apical part, with an increasing amount of white towards the tornus. Hind wing unicolorous blue from vein 1 to vein 6, areas 1 and 7 being black. The fringes of the hind wing are dark tipped with white except at the ends of the veins, where the fringes are entirely dark. The under surface is identical with that of *cercene* Hewitson.

Length of fore wing : 19 mm.

Holotype male. UGANDA : Entebbe, 1905 (*E. A. Minchin*) (in British Museum (N.H.)).

Epitola jacksoni sp. nov.

(Pl. 20, figs. 15, 16)

MALE. Upper surface : on the fore wing blackening of certain veins and the black discal patch have reduced the blue colour to areas 1 and 2 and the cell entirely blue, a curved subapical row of blue spots, those in areas 3, 5, 6 and 7 being large, that in area 4 minute. The blue colour is lighter in tone than in *cercene* and other related species. The fringes of the fore wing are entirely dark. The hind wing is as in the other related species, being blue from vein 1 to vein 6, areas 1 and 7 being black. The fringes of the hind wing are dark except at the apex where they are tipped with light. The arrangement of the pattern of the under surface is as in *cercene*, but the white markings are much reduced in size.

Length of fore wing : 20 mm.

Holotype male. UGANDA : Katera, August, 1938 (*T. H. E. Jackson*) (in British Museum (N.H.)).

Epitola convexa sp. nov.

(Pl. 20, figs. 11, 12)

MALE. This species forms with *insulana* Aurivillius and *intermedia* sp. nov. (*vide infra*) a trio of very closely allied species. *E. convexa* differs from *insulana* in having the distal margin of the fore wing distinctly convex at vein 5, and the distal margin of the hind wing more or less rounded from the apex to the anal angle ; in *insulana* the distal margins of the fore wing and the hind wing are practically straight lines. The black apex of the fore wing is continued as a black distal marginal band tapering to the tornus ; in *insulana* the black apex is tapered to vein 3 behind which it is continued merely as a fine black marginal line. On the under surface *convexa* differs from *insulana* in having the submarginal row of light coloured lunules diverging inwards from the distal margin in a smooth curve ; this row of lunules in *insulana* is a straight line parallel with the distal margin from the anal angle to area 5, the lunules in areas 6 and 7 suddenly diverging inwards from the margin.

Length of fore wing : 20 mm.

Holotype male. UGANDA : Bwamba, May, 1940 (*T. H. E. Jackson*) (in British Museum (N.H.)).

Epitola intermedia sp. nov.

(Pl. 19, figs. 9, 10)

MALE: This species appears to be intermediate between *insulana* and *convexa*. The wing shape is closer to *insulana* in that the distal margin of the fore wing, though slightly rounded, has not the distinct convexity at vein 5 as seen in *convexa*. Similarly the hind wing is less rounded than in *convexa*, but not so straight as in *insulana*. The black apex of the fore wing is continued as a tapered distal marginal border as far as the tornus as in *convexa*, but in *intermedia* the blue colour does not encroach between the veins to any noticeable degree; in *convexa* the prolongations of the blue into the black give the blue/black junction a serrated appearance. The markings of the under surface do not differ significantly from those seen in *convexa*.

Length of fore wing: 18 mm.

Holotype male. UGANDA: Katera, August, 1935 (*T. H. E. Jackson*) (in British Museum (N.H.)).

Epitola ikoya sp. nov.

(Pl. 19, figs. 5, 6, 7, 8)

MALE: Upper surface royal blue with the costa, apex and distal margin of the fore wing, and all margins of the hind wing rather broadly bordered with black (black border of costa opposite end of cell 1.5 mm. broad, the apex 6 mm., and the distal border of the hind wing 1.5 mm.). The end of the cell of the fore wing is marked by a fine black streak. Vein 2 on the fore wing is dilated at the base. The under surface is greyish-brown, very indistinctly marked with a slightly lighter tint. A marginal and submarginal row of lighter lunules are close together and extend from the apex of the fore wing to the anal angle of the hind wing. The lunules comprising these two rows are of approximately equal breadth. A curved, broken, discal line extends on the fore wing from a point on the hind margin just inside the tornus to midway along the costa, and on the hind wing from a point 2 mm. internal to the anal angle to the junction of the middle and outer one-third of the costa.

Length of fore wing: 15 mm.

FEMALE. Upper surface unicolorous sepia brown without markings. Under surface light ochreous with very faint traces of lighter markings as in the male.

Length of fore wing: 15 mm.

Holotype male and allotype female. SOUTHERN NIGERIA: Lagos, 28th October, 1946 (*P. J. L. Roche*) (in British Museum (N.H.)).

This species is close to *zelza* Hewitson (= *badia* Kirby) from which it differs in the male by having a black streak at the end of the cell on the upper surface of the fore wing, by having a slightly broader black border to the hind wing, and by the submarginal row of lunules on the under surface of the hind wing being the same width as the marginal row; in *zelza* the submarginal lunules are twice as wide as the marginal ones. The female differs from that of *zelza* in being unicolorous brown with no blue at all on the upper surface.

Epitola subcoerulea sp. nov.

(Pl. 21, figs. 25, 26)

MALE. Upper surface : fore wing with the distal margin strongly convex at veins 3 and 4, dark brownish black with a very indistinct blue spot in area 5 and another in area 3. The hind wing is deep royal blue bordered with black. This black border is of a practically uniform width of 1 mm. The under surface is greyish-brown, the fore wing having a darker longitudinal mark extending from the base of the wing to near the margin, bounded anteriorly by vein 5 and posteriorly by vein 2. Areas 1 and 2 pale greyish-white, and with two greyish-white spots, one in area 3 and the other in area 5, corresponding exactly with the indistinct blue spots on the upper surface. Both wings with an indistinct row of marginal lunules which are slightly paler than the ground colour ; in addition there is a very faint paler discal line across the hind wing.

Length of fore wing : 17 mm.

Holotype male. SIERRA LEONE : 1898 (*Capt. Stevens*) (in British Museum (N.H.)).

This species is close to *sublustris* B.-Baker, from which it is at once distinguished by the larger blue area on the hind wing above and by the two indistinct blue spots on the upper surface of the fore wing.

Epitola dolorosa sp. nov.

(Pl. 21, figs. 27, 28, 29, 30)

MALE : Distal margin of fore wing very strongly convex at veins 3 and 4. Fore wing above pitchy, with a blue streak in area 2, a small blue spot in area 3, and a very small indistinct blue spot in area 5 ; there are a few scattered blue scales in the cell. The under surface is brown, areas 1 and 2 of the fore wing pale grey. A longitudinal dark brown mark extends along the line of the median vein from the base of the wing nearly to the distal margin ; there is a slightly paler marginal band, a paler spot in area 3 and another in area 5. The hind wing has an indistinct paler submarginal band 2.5 mm. wide.

Length of fore wing : 14 mm.

Female : Upper surface unicolorous brown except for very faint traces of pale blue spots, one in area 3 and one in area 6. The under surface has a pale ochreous ground-colour with markings arranged as in the male.

Length of fore wing : 15.5 mm.

Holotype male. UGANDA : Bwamba Forest, Semliki Valley, November, 1911 (*S. A. Neave*) (in British Museum (N.H.)).

Allotype female. UGANDA : Entebbe (*S. A. Neave*) (in British Museum (N.H.)).

Epitola ghesquierei sp. nov.

(Pl. 22, figs. 33, 34)

MALE : Upper surface : Fore wing unicolorous pitchy black without any trace of blue marking ; hind wing blue from vein 1 to vein 7, with slight blue scaling in area

8; the black border invades the blue area along the ends of the veins; a fine black transverse streak marks the apex of the cell. The under surface is pale ochreous-grey without any marking other than a dark greyish-brown longitudinal mark in the posterior half of the fore wing; this mark is clearly defined anteriorly, but fades into the pale ground colour at the posterior margin of the wing. Length of fore wing 14 mm.

Holotype male. BELGIAN CONGO: Eala, November, 1936 (*J. Ghesquière*) (in Musée Royal du Congo Belge, Tervuren).

In general appearance this species recalls at first glance *sublustris* and *subcoerulea*, but is distinguished from both by the straighter margin of the fore wing.

***Epitola orientalis* sp. nov.**

(Pl. 22, figs. 35, 36)

MALE. Upper surface of the fore wing black, with rather obscure blue markings: a streak in the basal half of area 2, a spot towards the base of area 3, three ill-defined spots in the cell, and very faint subapical spots in areas 5 and 6. The hind wing is black, dusted with blue scales between the veins from vein 1 to vein 7. The under surface of the fore wing is dark brown with a yet darker longitudinal mark in the posterior half extending from the base almost to the margin of the wing; this mark is fairly well defined anteriorly, but posteriorly it fades to a pale greyish-brown on the posterior margin. The wing is further marked with fulvous lunular spots, a marginal row from the tornus to the apex, a submarginal row from area 3 to the costa, a subapical row and a discal row, the last two rows being confined to the anterior half of the wing, i.e., they do not invade the longitudinal dark mark. The hind wing has a very distinct broad (2 to 3 mm.) fulvous submarginal band, a fine marginal band, and three narrow transverse bands in the basal half of the wing of the same colour.

Length of fore wing: 15 mm.

Holotype male. UGANDA: Bwamba, September, 1942 (*T. H. E. Jackson*) (in British Museum (N.H.)).

This species is, above, very difficult to distinguish from *viridana* Joicey & Talbot, but a glance at the under surface is sufficient to separate the two species.

***Epitola daveyi* sp. nov.**

(Pl. 20, figs. 19, 20; Pl. 21, figs. 21, 22)

MALE. Upper surface intense bright blue, the fore wing with the costal margin narrowly black; the apex is narrowly black, and there is a very narrow black border to the distal margin of the wing. The hind wing is blue with the costal and inner margins black; there is a very fine black distal marginal line. The under surface is very similar to that of *albomaculata* B.-Baker from which it differs by having the dark markings rather smaller and more sharply defined.

Length of fore wing: 21 mm.

FEMALE. This resembles the female of *albomaculata* from which it differs above in